# ABHINAV JAPESH

D-413, Azad Hall Of Residence, IIT Kharagpur, Kharagpur, West Bengal-721302  $(+91)7424947230 \Leftrightarrow akjapesh@gmail.com$ 

## **EDUCATION**

# Indian Institute of Technology Kharagpur

August 2018 - Present

B.Tech+M.Tech(Dual Degree)

Department of Electrical Engineering.

CGPA: 8.94

# Disha Delphi Public School, Kota, Rajasthan

July 2016 - June 2018 Overall Percentage: 92.4%

All All India Senior Secondary Certification Examination (CBSE)

# Gail D.A.V. Public School, Auraiya, U.P.

June 2016 CGPA: 10

All All India Secondary Certification Examination (CBSE)

#### **PROJECTS**

## Trained a deep Neural network to distinguish cat and non cat images

- 1) Trained a 7 layered Neural network for binary classification of cat and non cat images and increase its efficiency by hyperparameters tuning:regularization and optimization.
- 2) used numpy, scipy, sklearn, matplotlib, tensorflow libraries on a multiple coloured images. Compared efficiency between L2 and dropout regularization and optimization between Adam optimizer and gradient descent.

# Lane Marker-Application of IP in real time autonomous driving

1) An application to process a drivers view of the road and identify lane markers from the image to guide a car along the road. It involves low level image processing and advanced geometry.

# Path Finder-Using A-Star algorithm to optimize maze solutions

- 1) Usage of multiple algorithms and data structures to make a global path finding algorithm for any given maze under seconds of time, with multiple constraints towards emulating a real car.
- 2) Used C++ and OpenCV to carryout the project and demonstrate the results in for various problem sets.

# ChatApp - a multithread chatting GUI app in JAVA network programming

1)includes GUI application of both server side and client side

2) Used threads concept in socket programming with OOP concept and JAVA GUI packages

# Bus ticket booking app

- 1)a GUI app to book your bus ticket, see availability of seats, your bookings, fares of travelling depending upon route chosen
- 2) Used database management for bookings along with Data structure for routes and JAVA gui packages for front end app

## Built the complete website for Bombay Kulfis franchise

1) Used HTML, Bootstrap, CSS, Javascript, Jquerry for frontend and Django framework for backend.

#### TECHNICAL SKILLS

Programming Languages Libraries and Frameworks Software and Tools c, c++, Python, Java, Javascript, HTML, CSS, MySQL, MATLAB Django,Numpy,sklearn,scipy,TensorFlow,OpenCV,Selenium,Tkinter, JDBC SolidWorks,LaTex,Git,Android Studio, JDK, Adobe Photoshop

#### POSITION OF RESPONSIBILITY

#### Web Team member

June 2020-present

International Relations Cell, IIT Kharagpur

- · Maintain the official website of International Relations, IIT Kharagpur
- · Developed and revitalized the Foreign Training Portal to ease the process of outbound research internships
- · Pioneered the Semester Away Portal to send out IIT Kharagpur students abroad for a semester or an year

#### Student Team member

June 2020-present

International Relations Cell, IIT Kharagpur

- · Working alongside a team of 19 elite member directly under Professor Baidurya BhattacharyaDean of InternationalRelations, IIT Kharagpur
- · Consolidated the event Dyuti, a 5-day Techno-Cultural workshop for foreign students studying in India

#### RELEVANT COURSEWORK

#### Core courses

Transform Calculus, Signals and Network, Introduction to electronics, programming data structures (pds), analog , general machines, measurements of electronic devices, Algorithms-2

## MOOC

machine learning (cs229),deep learning and neural network(deeplearning.ai),CNN(CS231n),Optimization of hyperparameters(deeplearning.ai) Web Scrapping ,Java networking programming ,Database management system(DBMS)

## ACADEMIC ACHIEVEMENTS

Secured ALl India Rank-1440 in JEE-Advanced, 2018

Among the top 0.1% of around 1 million applicants in JEE-Mains, 2018

KVPY Schollar(Indian Institute of Science)-2018,2017

Among top 30 students qualified in Indian National Astronomy Olympiad(HBCSE)-2017

National Top 1% in National Standard Examination in Astronomy(IAPT)-2017

Among top 10 teams in National Children Science Congress(UP)-2015

## EXTRA-CIRRUCULAR

Squash-part of bronze winning team in General Championship-2020 of IIT kHaragpur Badminton-Part of Gold winning team in General Championship-2019 of IIT Kharagpur member of Hall team in Mathematics Olympiad in General Championship-2019 of IIT Kharagpur Winner of General Quiz Competition held at IEM Kolkata